

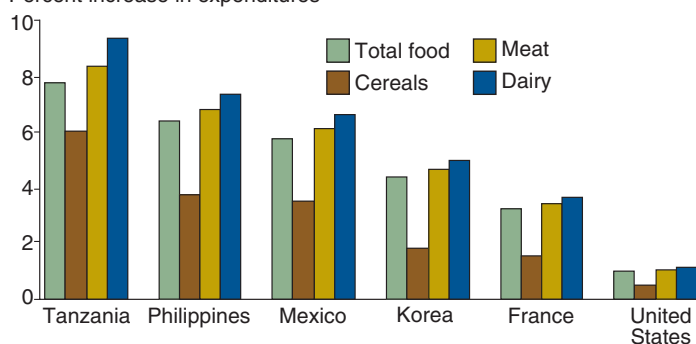
## A Richer World Wants A Richer Diet

A number of forces, such as income, urbanization and population growth, are changing the way the world eats. Of these forces, income—both its level and growth—has had the greatest effect. Per capita income levels have more than doubled in many countries over the past two decades. While purchasing power has increased generally across countries, patterns of food demand and household spending on food differ dramatically between low- and high-income countries. Consumers in low-income countries spend a larger share of their overall household income on necessities such as food and clothing, while consumers in wealthier countries spend a bigger share of their overall household budget on housing, services (such as education), and luxury items (such as recreation).

Although the share of household income spent on food varies among countries at different income levels, demand for high-value foods—such as meat and dairy products—is growing across all

### What would be the result of a 10-percent rise in incomes?

Percent increase in expenditures



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income levels. Food expenditure shares for meat and dairy products are higher in high-income countries than in low-income countries, where staple foods such as breads and cereals account for 27 percent of the total food budget versus 12 percent for high-income countries.

Consumers in low-income countries also make greater adjustments in their household spending on food when incomes and/or prices change. For example, when household incomes increase by 10 percent, an average consumer in Tanzania increases spending on food by 8 percent. Spending on food would increase by 6.5 percent in the Philippines, and just 1 percent in the United States. Likewise, if food prices increase, food spending declines the most in Tanzania and the least in the U.S. Across all countries, price and income increases result in smaller adjustments for staple food items than for higher-valued food items such as meat and dairy products. W

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### This finding is drawn from ...

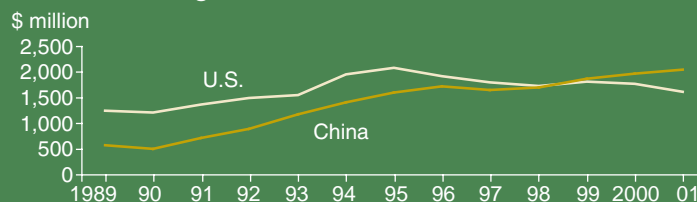
*International Evidence on Food Consumption Patterns*, by James Seale, Anita Regmi, and Jason Bernstein, TB-1904, USDA/ERS, October 2003, available at: [www.ers.usda.gov/publications/tb1904/](http://www.ers.usda.gov/publications/tb1904/)

## China's Vegetable Exports Challenge the U.S. in Japan's Market

Technological investments in China's vegetable sector and port facilities have paved the way for an expansion in its vegetable exports, particularly to Japan, where China and the United States have long been the two leading fruit and vegetable suppliers. In 1999, China displaced the United States as the leading supplier for Japan, and has since improved that position.

Japan is second only to Canada as the top market for U.S. fruits and vegetables, receiving \$1.3 billion—or nearly one-fifth—of U.S. fruit and vegetable exports during 1999-2001. French fries, processed sweet corn, and fresh produce such as grapefruits, cherries, oranges, and broccoli are top U.S. exports to Japan. In fact, Japan led the rapid export growth of U.S. produce to Asia between the mid-1980s and mid-1990s, when advances in transportation, shipping, and handling enabled trade in fresh, versus processed, fruits and vegetables. Asia surpassed the

### China surpassed the U.S. in Japan's import market for fruits and vegetables



European Union as the leading destination for U.S. fruit and vegetable exports outside North America in the early 1990s.

China targeted Japan as its top market for fresh and processed vegetables during the 1990s. Starting with a 6-percent share of Japan's fresh vegetable import value in 1990, China became Japan's

## Are More Livestock Hitting the Road?

Recent concerns about the safety of the U.S. food supply and the potential for bioterrorism, as well as incidents like mad cow disease in Canada, have prompted a new look at livestock movements. The potential for transmitting disease—whether due to bioterrorism or a natural occurrence—increases when animals mix with other animals at a variety of locations. An important early step toward a cost-effective public strategy for managing such risks is to understand livestock mobility. Why are animals shipped long distances, and are livestock being moved more now than in the past?

Animals are often shipped long distances because doing so is frequently cheaper than shipping the feed needed to

reach slaughter weight to the animals. Shipping livestock enables the efficient use of feed and forage (grass or hay) supplies that vary by region and season. This is most apparent when animals are moved from growing areas to finishing areas (where livestock are fed to slaughter weight) and then to slaughter plants.

Shipments of hogs, in particular, have increased dramatically—from under 10 percent of total (December 1) inventory in 1990 to more than 40 percent now. This increase reflects significant feeder pig imports from Canada, and the development of the hog industry in North Carolina and other States outside the Corn Belt. For example, pigs born in grain-deficient North Carolina may be weaned and moved to a growing/finishing facility in Iowa, where they consume corn, soybean meal, and other feeds grown nearby. Then, they may be shipped to slaughter plants often closer to major consumer markets in the U.S. and to export locations.

In contrast, cattle and sheep shipments have remained fairly steady at about 20 percent of inventories. Movements of cattle occur throughout the country, but especially into (and within) the Northern and Southern Plains. The top four cattle



Grant Heilman/Grant Heilman Photography

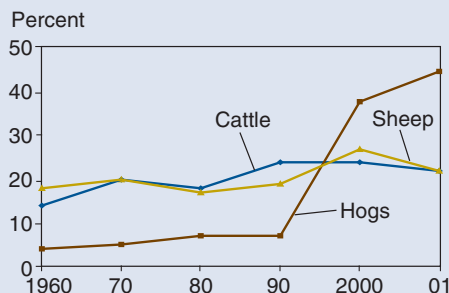
feeding States (Texas, Missouri, Nebraska, and Colorado) account for 65 percent of the feeder cattle supply and more than two-thirds of cattle slaughter. Sheep shipments have declined sharply since the early 1990s as the U.S. inventory continues its long-term decline. Colorado and California—two major sheep feeding and slaughter States—account for almost two-thirds of total interstate shipments. *W*

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### This finding is drawn from . . .

*Interstate Livestock Movements*, by Dennis A. Shields and Kenneth H. Mathews, Jr., LDP-M-108-01, USDA/ERS, June 2003, available at: [www.ers.usda.gov/publications/ldp/jun03/ldpm10801/](http://www.ers.usda.gov/publications/ldp/jun03/ldpm10801/)

### Livestock shipments as a share of national inventory



leading supplier by 1996 and reached a 38-percent share in 2001. China's exports included broccoli, onions, and asparagus, competing with leading U.S. vegetable exports.

Similarly, China's share of Japan's import market for processed vegetables and fruits more than doubled in the 1990s to reach 53 percent in 2001. The U.S., however, remains a strong competitor in the Japanese market for frozen potatoes and processed sweet corn, where China is not a player. Overall, the U.S. share of Japan's import market stood at less than 19 percent for fresh vegetables and 21 percent for processed products in 2001. The respective shares for other countries in the Japanese market were 43 percent and 26 percent in 2001.

China's rising vegetable exports to Japan were bolstered by many factors. With its low production costs and geographic proximity to Japan, China attracted foreign investment, especially from Japanese trading companies. These businesses provided the seeds, spores, and

production/packing techniques, and imported the harvest for Japanese retailers. Improved ocean freight service from major Chinese ports to Japan also increased China's competitiveness.

Recent trade friction with Japan over chemical residues on Chinese vegetables could prompt changes in production practices and greater inspection. These added costs could reduce China's competitiveness. However, with its low labor costs, China will likely continue to be a formidable competitor with the United States in Japan, particularly for fresh vegetables. *W*

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### This finding is drawn from . . .

A broader ERS study of the global patterns of trade in fruits and vegetables and other reports, including *China Increases Exports of Fresh and Frozen Vegetables To Japan*, by Sophia Wu Huang, VGS292-01, August 2002, available at: [www.ers.usda.gov/publications/vgs/aug02/vgs292-01/](http://www.ers.usda.gov/publications/vgs/aug02/vgs292-01/)